GE Healthcare
Technologies

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The Honorable Michael Doyle
Chairman, Subcommittee on
Communications and Technology
U.S. House of Representatives
2123 Rayburn HOB
Washington, DC 20515

The Honorable Bob Latta
Ranking Member, Subcommittee on
Communications and Technology
U.S. House of Representatives
2232A Rayburn HOB
Washington, DC. 20515

Dear Chairman Doyle and Ranking Member Latta:

In the midst of a global pandemic, there has never been a more critical time for technology to be brought to bear on the challenges of our healthcare system. Whether it is the equipment in a clinical setting that enables our frontline workers to care for so many, or the connected devices patients take with them out into the world, connectivity is very much a part of the modern healthcare system. Chairman Pai and the Commission have taken strong steps to support our healthcare heroes by making the 6 GHz spectrum available for unlicensed uses, but its work is not done. We urge the Commission to act before the end of the year to facilitate innovation in healthcare through adopting the changes advanced in its Further Notice of Proposed Rulemaking including increased low-power indoor (LPI) emissions limits and authorizing a class of very low power (VLP) devices for indoor/outdoor use.

In a clinical setting, unlicensed spectrum is critical – connecting nurses to health records, devices to monitoring stations, and professionals to each other. In April of this year, Chairman Pai lead the Federal Communications Commission in making 1,200 MHz of new spectrum available for unlicensed services, particularly for LPI as is seen in hospitals. This newly available spectrum will significantly increase the use of wireless technology in hospitals, but the current power levels will limit its utility. To live up to its potential, we support the Commission's proposal to increase the authorized indoor power level to 8 dBm/MHz PSD for LPI devices. As many have noted in the Commission's record, this change will provide more reliable indoor coverage without harming the services provided by incumbents that operate outside the clinical setting. Higher LPI power will be especially impactful in healthcare environments, which have significantly higher numbers of interior walls than modern offices to provide everything from

private exam rooms to operating theaters to inpatient beds. In addition, through-wall RF propagation in clinical settings is more challenged than in other settings due to extensive use of insulating materials to protect patient confidentiality, as well as shielding materials to contain emissions from medical imaging and therapeutic equipment in some areas.

Additionally, we support the Commission's proposal to make the 6 GHz spectrum available for VLP use both indoors and outdoors at 14 dBm EIRP. There are many healthcare applications for short range, multi-gigabit connections such as handheld ultrasound or other imaging devices providing realtime displays on mobile tablets and augmented reality surgical systems delivered via heads-up displays. VLP devices could also be used by clinicians treating COVID-19 patients, who can remain outside the patient's room but connect directly to a monitoring device in the room with high fidelity and ultra low latency. As important as hospitals and clinics are to patient care, the goal is always to get patients back to their lives outside the clinical setting. Wearable medical technologies in the home that use VLP to keep patients connected to the healthcare system are the next evolution of ensuring positive outcomes and improving our patients' quality of life. The Commission has the opportunity to further these goals by authorizing VLP use of 6 GHz to power the next generation of health technologies and untether patients to live their lives. As an example, wearable sensors and spot-check devices to monitor key physiological parameters while the patient recovers from surgery in both the post-surgery unit and eventually at home can be realized in the 6GHz band.

Unfortunately, our global healthcare needs are only increasing, and in the midst of a global pandemic there has never been a more critical time for health technology. By taking action to increase the indoor power limits and authorize VLP use of the 6 GHz band, the Commission can help fuel the innovative technologies that literally save lives.

Regards,

Matthew R. Pekarske